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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,516	04/13/2004	Christopher Warren	02-102	3276
24314 7590 07/26/2007 JANSSON SHUPE & MUNGER LTD. 245 MAIN STREET RACINE, WI 53403			EXAMINER FIGUEROA, ADRIANA	
			ART UNIT 3637	PAPER NUMBER
			MAIL DATE 07/26/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,516	Applicant(s) WARREN, CHRISTOPHER	
	Examiner Adriana Figueroa	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 9, 10, 12, 15-17, 19, 20, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463) and further in view of German patent (DE 2426521A).

Regarding claims 9, 15-17, 20 and 25, Woelfel discloses a second layer (110) overlying a first layer (108), said second layer including an aliphatic polymer such as epoxy polyamid and a resilient material such as polyurethane rubber (Figure 2), (Column 2, Lines 23-26).

Woelfel does not disclose the first layer including silica sand and phenolic resin, said first layer including pores therein. However, Chen teaches a layer including silica sand (Column 4, Lines 9-15) and phenolic resin such as a thermosetting polymer (Column 6, Lines 33-39), the first layer would obviously include pores therein.

Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the first layer of Woelfel to include silica sand and a phenolic resin as taught by Chen in order to be able to include a higher amount of wear resistant particles into the layer without significant settling or agglomeration which will provide a stronger wear resistance surface.

Woelfel discloses a third layer (112) overlying the second layer, but does not disclose said third layer including an aliphatic polymer, silica sand and silica flour. However, German patent (DE 2426521A) teaches a third layer overlying a second layer including an aliphatic polymer such as an epoxy-resin, silica sand and silica flour. Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the protective layer of Woelfel to include a third layer having an aliphatic polymer, silica sand and silica flour as taught by German patent (DE 2426521A) in order to improved the strength and wear resistance of the protective layer and to be completely inert to corrosive materials.

Regarding claim 10, Woelfel modified by Chen and Patent (DE 2426521A) discloses as discussed above, Chen also teaches the silica sand of the first layer having a particle size of about 60 mesh (Column 4, Lines 20-24). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the first layer of Woelfel modified by Chen and German patent (DE 2426521A) to include silica sand particles of about 60 mesh as taught by Chen in order to improve the wear resistance and flexibility of the layer.

Regarding claims 12 and 26, Woelfel modified by Chen and German patent (DE 2426521A) discloses as discussed above, Chen also teaches wherein the silica sand of the first layer is pre-coated with the phenolic resin (Column 4, Lines 54-55). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the silica sand of Woelfel, Chen and German patent (DE

2426521A) to be pre-coated with the phenolic resin as taught by Chen in order to prevent the settling of the particles.

Regarding claim 19, Woelfel discloses a second layer (110) having a thickness of about 20-30 mils, (Column 4, Lines 20-21).

2. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A) and further in view of Britt (US 2003/0156901). Woelfel modified by Chen and German patent (DE 2426521A) discloses as discussed above but does not disclose the phenolic resin being present in an amount of about 3 to 5 percent by weight of the silica sand of the first layer. However, Britt teaches a composition having a thermoplastic polymer from about 1-10 weight percent and nonreinforcing mineral particles from about 20-80 percent (Page 2, Paragraph 14). In addition, Britt teaches that the nonreinforcing mineral particles can be silica (Page 2, Paragraph 22, Line 9) and it is known that the phenolic resin is a polymer. The weight percent of these materials can be varied within the ranges taught by Britt to obtain the ratio of phenolic resin of about 3 to 5 percent by weight of the silica sand. Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the amount of phenolic resin of Woelfel, Chen and German patent (DE 2426521A) to be present in an amount of about 3 to 5 percent by weight of the silica sand as taught by Britt in order to provide a strong resistance to abrasion when used in heavy traffic areas.

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A) and further in view of Becker (US 4,791,015). Woelfel modified by Chen and German patent (DE 2426521A) discloses as discussed in claim 12, but does not disclose the adjacent pre-coated silica sand particles being fused together by the phenolic resin. However, Becker teaches the use of various particles including glass and ceramics (Column 5, Lines 40-42) with the heat activated thermosetting resin (Column 5, Lines 43-48). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the first layer of Woelfel, Chen and German patent (DE 2426521A) to have the adjacent pre-coated silica sand particles being fused together by the phenolic resin as taught by Becker in order to activate the adhesive to assure bonding between the particles.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A) and further in view of Bolgiano (US 4,781,987). Woelfel modified by Chen and German patent (DE 2426521A) disclose as discussed in claim 13, but does not disclose the second layer further comprising a catalyst. However, Bolgiano teaches a second layer further comprising a catalyst (Columnn 14, Lines 31-34). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the second layer of Woelfel, Chen and German patent (DE

2426521A) to include a catalyst as taught by Bolgiano in order to improved the stain and scratch resistance.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A) and further in view of Verret (WO 00/50707). Woelfel modified by Chen and Patent (DE 2426521A) discloses as discussed above, but does not disclose the rubber comprising rubber particles having a particle size of about 60 mesh. However, Verret teaches a layer comprising rubber particles having a particle size of about 60 mesh (Abstract, Line 2). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the rubber particles of Woelfel, Chen and German patent (DE 2426521A) to have rubber particles having a particle size of about 60 mesh as taught by Verret in order to provide an acoustic effect.

6. Claims 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A) and further in view of Gibbons (US 3,928,706). Woelfel modified by Chen and German patent (DE 2426521A) discloses as discussed in claim 9 but does not disclose the third layer further comprising colored quartz particles distributed therein. However, Gibbons teaches a layer having colored quartz particles (Column 3, Lines 2-3, Lines 35-40). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the third layer of Woelfel, Chen

and German patent (DE 2426521A) to include colored quartz particles as taught by Gibbons in order to provide a decorative effect.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A), Gibbons (US 3,928,706) and further in view of Miller (US 4,504, 523). Woelfel modified by Chen and German patent (DE 2426521A) and Gibbons discloses as discussed in claim 21 but does not disclose the colored quartz particles having a particle size of about 28 mesh. However, Miller teaches a layer including quartz particles having a particle size of about 28 mesh (Column 1, Lines 57-62). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the third layer of Woelfel, Chen, German patent (DE 2426521A) and Gibbons to include quartz particles having a size of 28 mesh as taught by Miller in order to provide a decorative appearance.

8. Claims 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woelfel (US 4,525,965) in view of Chen (US 6,228,463, German patent (DE 2426521A) and further in view of Severance (US 4,265,957).

Regarding claim 23, Woelfel modified by Chen, Patent (DE 2426521A) discloses as discussed in claim 9, but does not disclose the third layer having a thickness of about 40-60 mils. However, Severance teaches a multi-layered covering system wherein the third layer has a thickness of about 40-60 mils, (Column 5, Lines 12-13). Therefore, it

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would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the third layer of Woelfel, Chen and German patent (DE 2426521A) to have a third layer of about 40-60 mils thick as taught by Severance in order to provide a stronger wear resistance.

Regarding claims 24 and 28, Woelfel modified by Chen, German patent (DE 2426521A) discloses a fourth layer (114) overlying the third layer (112), but does not disclose said fourth layer including a clear aliphatic polymer. However, Severance teaches a fourth layer including a polyurethane resin, which is equivalent to a clear aliphatic polymer (Column 5, Lines 59-60). Therefore, it would have been obvious to a person having ordinary skill in the arts at the time of the applicant's invention to modify the protective layer of Woelfel, Chen and German patent (DE 2426521A) to include a fourth layer as taught by Severance in order to provide a sealer coat.

Response to Arguments

9. Applicant's arguments with respect to claims 9-28 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the prior art of Britt, Chen, Becker, Gibbons and Miller disclose teachings that clearly anticipate the claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawasumi (US 2002/0090490) teaches a surface protection layer including a second layer having an epoxy resin and a variety of rubbers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adriana Figueroa whose telephone number is 571-272-8281. The examiner can normally be reached on Monday-Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 571-272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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07/20/2007

LANNA MAI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

